

WHAT IS CLAIMED IS:

1. An acoustic contact detecting device, comprising:

(a) a substrate having a top surface;

5 (b) an acoustic wave transducer for coupling with a first wave representative of a bulk wave being propagated through said substrate along an axis crossing said top surface;

(c) a planar wiring for supplying said acoustic wave transducer with electric power;

10 (d) a diffractive acoustic wave mode coupler having a mode of converted wave having high energy on said top surface and functioning for coupling a second wave being propagated along an axis parallel to said top surface with said first wave; and

(e) a means for detecting a perturbation in energy of said second wave.

15 2. A coordinate input device of touch type comprising: a propagation medium having a top surface capable of propagating an acoustic wave; a bulk wave generation means for propagating a bulk wave in a crossing direction with respect to said top surface of said propagation medium; a planar wiring for supplying said bulk wave generation means with electric power; an acoustic wave
20 generation means for converting said bulk wave into an acoustic wave and propagating said acoustic wave on the top surface of said propagation medium; and a detecting means for detecting a scatter in the surface of the acoustic wave from said acoustic wave generation means.

25 3. A device in accordance with claim 1 or 2, in which said acoustic wave transducer is composed of a piezoelectric vibrator.

4. A device in accordance with claim 1 or 2, in which said wiring is formed

by using conductive paste.

5. A device in accordance with either of claim 1, 2 or 4, in which said wiring is formed by way of transfer printing.

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6. A device in accordance with claim 1 or 2, in which said wiring is formed on a back surface of the substrate.

7. A substrate for an acoustic detecting device having a top surface, said
10 substrate further comprising:

(a) an acoustic wave transducer coupled with a bulk wave having a propagation axis crossing said top surface in said substrate;

(b) a wiring for supplying said acoustic wave transducer with electric power, said wiring being printed on a back surface of said substrate;

15 (c) a diffractive acoustic wave mode coupling structure formed in the proximity to said surface for converting acoustic energy of the bulk wave into a wave to be propagated along an axis parallel to said top surface; and

(d) a means for detecting the converted acoustic wave energy corresponding to a position of a perturbation event.